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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,616	02/16/2006	Toshihiko Okamoto	Q93069	9359
23373 7590 12/16/2010 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER PENG, KUO LIANG				
ART UNIT		PAPER NUMBER		
1765				
NOTIFICATION DATE		DELIVERY MODE		
12/16/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/568,616

**Applicant(s)**

OKAMOTO ET AL.

**Examiner**

Kuo-Liang Peng

**Art Unit**

1765

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/4/10 Amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4, 19, 20 and 23-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 19-20, 23-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11/17/10, 7/28/10, 6/14/10
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The Applicants' amendment filed October 4, 2010 is acknowledged. Claims 2-3, 5-18, 21-22 are deleted. Claims 1 and 4 are amended. Claims 27-30 are added. Now, Claims 1, 4, 19-20 and 23-30 are pending.
2. Claim rejection(s) under 35 USC 102 and 103 in the previous Office Action (Paper No. 20100605) is/are removed.
3. The text of those sections of Title 35, U.S. code not included in this action can be found in prior Office Action(s).

### ***Claim Objections***

4. Claim 20 (in page 6) is objected to because of the following informalities:

Should Claim "20" in page 6, be -- 28 --?

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

5. Claims 1, 19-20, 24-25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komitsu (US 2003 0105261) and optionally as evidenced by Haddick (US 3 661 885).

For Claims 1, 19-20, 24 and 29, Komitsu discloses a curable resin composition comprising an oxypropylene polymer containing reactive silyl functional groups; a curing catalyst system containing tin carboxylate such as ***stannous versatate*** optionally ***an amine***; a ***phthalate plasticizer*** (e.g., dibutylphthalate, etc.); and a ***filler***. ([0010], [0020]-[0024], [0080], [0088], [0096] and [0098]) The oxypropylene polymer can be end-capped with trimethoxysilyl groups derived from aminoalkyltrimethoxysilane or isocyanatoalkyltrimethoxysilane to afford a polymer containing two urethane moieties. ([0030]) Komitsu is silent on the presently claimed amounts of the tin catalyst (optionally containing amine), the plasticizer and the filler specifically with respect to 100 parts by weight of the oxypropylene polymer. However, these amounts would affect the curing rate of the composition and physical properties of the cured product. In other words, these amounts are Result-Effective variable. Therefore, it would have been obvious to one of ordinary skill in the art to employ the foregoing

components in whatever amount through routine experimentation in order to achieve a desired curing rate and/or physical properties. Especially, Applicants do not show the criticality of such amounts. See MPEP 2144.05 (II). For Claim 25, the foregoing stannous versatate is commercially available, which contains C<sub>9</sub>-C<sub>11</sub> monocarboxylate as taught in Haddick. (col. 1, lines 46-72)

6. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komitsu (US 2003 0105261) in view of Masaoka (WO 00 56818).

The following column and line numbers in Masaoka is based on its U.S. equivalent, US 6 569 980.

Komitsu discloses a curable resin composition comprising a phthalate plasticizer such as **dibutyl phthalate** plasticizer, *supra*, which is incorporated herein by reference. Komitsu is silent on the presently claimed diisodecyl phthalate. However, Masaoka teaches the equivalency of plasticizers such as **diisodecyl phthalate** and **dibutyl phthalate** in a polyoxypropylene sealant/adhesive composition that is in the same field of endeavor as that of Komitsu. (col. 1, lines 15-20, col. 11, lines 25-56) Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to employ diisodecyl phthalate into Komitsu's composition with expected success.

7. Claims 4, 23, 26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komitsu in view of Suzuki (EP 538 881) and Okamoto (WO 03 011978), optionally as evidenced by Haddick (US 3 661 885).

The following column and line numbers pertaining to Okamoto is based on its U.S. equivalent, US 7 115 695.

For Claims 4 and 23, Komitsu teaches a curable resin composition comprising a stannous versatate, *supra*, which is incorporated herein by reference. Komitsu is silent on the specific use of carboxylic acid. However, Suzuki teaches that organometallic compounds containing tin is expensive and highly toxic. Suzuki further teaches the use of carboxylic acid in place of organometallic compounds in curing a polymer having at least one silicon atom-containing group to the silicon atom of which a hydroxyl group or a hydrolysable group is attached (page 2, lines 9-19). Since the composition of Suzuki is similar to that of Komitsu, and both inventions of Suzuki and Komitsu are in the same field of endeavor-sealant/adhesive-motivated by the advantages of using carboxylic acid, as taught by Suzuki,

it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used carboxylic acid in curing the composition of Komitsu. Furthermore, modified Komitsu is silent on the carboxylic acid of the instant claim. However, Okamoto teaches a curable composition comprising an organic polymer having at least one silicon-containing group which has a hydroxyl, or hydrolyzable group bonded to the silicon atom and which is crosslinkable by forming siloxane bonds, and a specific metal salt of a carboxylic acid (Abstract, lines 1-5). Okamoto further teaches that in view of availability, cheap price and good compatibility with the organic polymer, the carboxylic acid from which the metal carboxylate is formed is preferably neodecanoic acid, amongst a limited list of carboxylic acids (col.15, lines 61-65), and that in view of its rapid curing rate, the carboxylic acid is more preferably carboxylic acid wherein a carbon atom adjacent to a carbonyl group is quaternary carbon (col.16, lines 1-8). Since the composition of Okamoto is similar to that of modified Komitsu, and both inventions of Okamoto and modified Komitsu are in the same field of endeavor-sealant/adhesive-motivated by the advantages of carboxylic acid wherein a carbon atom adjacent to a carbonyl group is quaternary carbon as taught by Okamoto, it would have been obvious to one of ordinary skill

in the art to have used the carboxylic acid wherein a carbon atom adjacent to a carbonyl group is quaternary carbon of Okamoto, in curing the composition of the invention of modified Komitsu. For Claim 26, the foregoing stannous versatate is commercially available, which contains C<sub>9</sub>-C<sub>11</sub> monocarboxylate as taught in Haddick. (col. 1, lines 46-72)

8. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komitsu in view of Suzuki, Okamoto and Masaoka (WO 00 56818).

The following column and line numbers in Masaoka is based on its U.S. equivalent, US 6 569 980.

Komitsu discloses a curable resin composition comprising a phthalate plasticizer such as **dibutyl phthalate** plasticizer, *supra*, which is incorporated herein by reference. Komitsu is silent on the presently claimed diisodecyl phthalate. However, Masaoka teaches the equivalency of plasticizers such as **diisodecyl phthalate** and **dibutyl phthalate** in a polyoxypropylene sealant/adhesive composition that is in the same field of endeavor as that of Komitsu. (col. 1, lines 15-20, col. 11, lines 25-56)  
Therefore, it would have been obvious to one of ordinary skill in the art at



the time the invention was made to employ diisodecyl phthalate into Komitsu's composition with expected success.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone

number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck, can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

klp  
December 9, 2010

/Kuo-Liang Peng/  
Primary Examiner, Art Unit 1765